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10/674,417	10/01/2003	Peter Danko	046201-0109	5128

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Charles F Schill  
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1330 Connecticut Avenue N W  
Washington, DC 20036

EXAMINER
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WARD, JESSICA LEE

ART UNIT	PAPER NUMBER
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1733

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/15/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/674,417

Applicant(s)

DANKO, PETER

Examiner

Jessica L. Ward

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11/22/06, RCE.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14, 15 and 31-42 is/are pending in the application.
- 4a) Of the above claim(s) 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14, 31-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***RCE***

1. The request filed on 11/22/06 for a RCE under 37 CFR 1.114 based on parent Application No. 10/674,417 is acceptable and a RCE has been established. An action on the RCE follows.

***Response to Amendment***

2. The rejection of claims 1, 31 and 37 under 35 USC 102(b) as being anticipated by Maughan (US 3929536), as set forth in paragraph 10 of the previous action has been withdrawn in light of the present amendment – as for claims 1 and 31, the reference fails to teach or suggest the rib extending from the first layer to the second layer and the rib being thermoplastic; as for claim 37, the reference fails to teach or suggest the member being thermoplastic.

3. The rejection of claim 37 as being anticipated by Ruemeli et al. (US 5069738), as set forth in paragraph 11 of the previous action, has been withdrawn because the reference fails to teach or suggest a space between the member and the closed end.

***Claim Rejections - 35 USC § 102***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 31-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Leatherman et al. (US 5384002).

As to claim 31, Leatherman teaches a method of closing an open end of a corrugated thermoplastic panel having a first layer 2 with a first free end and a second layer 3 with a second free end, the first layer being spaced from the second layer by a rib 4 extending from the first

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layer to the second layer, the first and second free ends defining a first open end (column 4, lines 25-45), and the first and second layers being heat sealable to each other, wherein the rib is thermoplastic and the method comprises: guiding the first free end along a surface so that a first portion of the first layer bends and abuts a second portion of the second layer and heat sealing the abutting first and second portions to each other to form a closed end extending proximate an edge of the thermoplastic panel and to define a space between the rib and the closed end (Figures 5-10; column 4, line 66 – column 5, line 15; column 6, line 61 – column 7, line 27).

As to claim 37, all the limitations were addressed with respect to claim 31 except for the panel having a plurality of interior regions. Leatherman teaches this limitation (Figures 1-3).

As to claims 32-36 and 38-42, Leatherman teaches such.

6. Claims 31-42 are rejected under 35 U.S.C. 102(b) as being anticipated by the Admitted Prior Art in the specification of the present application, which incorporates US 5658644 to Ho et al. by reference.

As to claim 31, the Admitted Prior Art teaches a method of closing an open end of a corrugated thermoplastic panel having a first layer with a first free end and a second layer with a second free end (p. 1, lines 8-21 and see Figure 1 of '644), the first layer being spaced from the second layer by a rib extending from the first layer to the second layer, the first and second free ends defining a first open end, and the first and second layers being heat sealable to each other, wherein the rib is thermoplastic and the method comprises: guiding the first free end along a surface so that a first portion of the first layer bends and abuts a second portion of the second layer and heat sealing the abutting first and second portions to each other to form a closed end

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extending proximate an edge of the thermoplastic panel and to define a space between the rib and the closed end (p. 2, lines 18-19 and 26-28).

As to claim 37, all the limitations were addressed with respect to claim 31 except for the panel having a plurality of interior regions. The Admitted Prior Art teaches this limitation (Figure 1 of '644).

As to claims 32-36 and 38-42, the Admitted Prior Art teaches such.

7. Claims 37-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Wouters (EP 0 332 602).

As to claim 37, Wouters teaches a method of closing an open end of a thermoplastic panel having a first layer 4 with a first free end and a second layer 5 with a second free end, the first layer being spaced from the second layer by a member 2 extending from the first layer to the second layer, the first and second free ends defining a first open end, and the first and second layers being heat sealable to each other, and the panel having a plurality of interior open regions, wherein the member is thermoplastic (Figure 7; column 2, lines 48-59) and the method comprises: guiding the first free end along a surface so that a first portion of the first layer bends and abuts a second portion of the second layer and heat sealing the abutting first and second portions to each other to form a closed end extending proximate an edge of the thermoplastic panel and to define a space between the member and the closed end (Figure 7; column 4, lines 39-54).

As to claims 38-42, Wouters teaches such.

***Claim Rejections - 35 USC § 103***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1-12, 14 and 31-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wouters as applied to claim 37 above and further in view of Kato (JP 5-177752).

As to claim 31, all the limitations were addressed with respect to claim 37 in paragraph 7 above except the thermoplastic panel of Wouters being corrugated and the member being a rib. Wouters teaches the thermoplastic member being foam plastic wherein the finished panel can be used in the insulation and packaging industries (column 1, lines 3-12). It is known in the insulation/packaging industry to make a thermoplastic panel comprising a foam plastic corrugated core sandwiched between first and second plastic layers such that the ribs of the corrugated core extend from the first layer to the second layer, as taught by Kato (title and abstract). One reading Wouters as whole would have appreciated that the reference is not concerned with a particular configuration for the foam plastic member; therefore, it would have been obvious to use a foam plastic corrugated core because such is known in the art, as taught by Kato, where a corrugated configuration imparts strength to the panel.

As to claim 1, all the limitation were addressed with respect to claims 31 and 37 except the rib being interconnected with the first layer and rolling at least the first layer along a surface toward the second layer and contacting the first layer with the second layer. Wouters teaches the member being interconnected with the first and second layers (column 1, lines 55-61; column 3, lines 37-50); therefore, Wouters in view of Kato teach the rib being interconnected with the first layer and the second layer. Wouters teaches rolling at least the first layer along a surface toward

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the second layer and contacting the first layer with the second layer (Figure 7; column 4, lines 39-54).

As to claims 2-12, 14 and 32-36, Wouters teaches such.

10. Claims 1-12, 14 and 31-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato in view of Wouters.

Applicant is directed to paragraphs 7 and 9 above for a complete discussion of Kato and Wouters. As to claims 1, 31 and 37, Kato is unclear as to the first and second layers defining an open end and rolling/guiding the first free end along a surface toward the second free end to contact the first and second layers and heat sealing/fusing the first and second layers to form a closed end extending proximate an edge of the panel to define a space between the member/rib and the closed end. Such would have been obvious in light of Wouters because this creates edges that are shockproof (Wouters at column 2, lines 28-34) and therefore a panel that is more durable.

As to claims 2-12, 14, 32-36 and 38-42, Kato in view of Wouters teaches such.

11. Claims 1-12, 14 and 31-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter (US 6037033) in view of Nelson (US 4985106).

As to claim 37, Hunter teaches a method of closing an open end of a thermoplastic (insulation panel) having a first layer 14 with a first free end and a second layer 16 with a second free end, the first layer being spaced from the second layer by a member 20 extending from the first layer to the second layer (Figures 5 and 17-18), the first and second free ends defining a first open end, and the first and second layers being heat sealable to each other, and the panel having a plurality of interior open regions, wherein the member is thermoplastic (column 5, lines 13-27;

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column 6, lines 7-12; column 9, lines 18-20) and the method comprises: bringing the first and second free ends together such that a first portion of the first layer bends and abuts a second portion of the second layer and heat sealing the abutting portions to each other to form a closed end extending proximate an edge of the thermoplastic panel and to define a space between the member and the closed end (Figures 5 and 17-18; column 5, lines 23-28). It is unclear as to whether Hunter brings the first and second free ends together by guiding the first free end along a surface so that a first portion of the first layer bends and abuts a second portion of the second layer.

It is known in the thermoplastic insulation panel art to close open ends of the panel by guiding first and second free ends along a surface (i.e. roller arrangement) so that portions of the first and second layers bend and abut and heat sealing the abutting portions to each other to form a closed end, as taught by Nelson (Figure 1; column 6, line 67 – column 7, line 8; column 8, lines 60-63). Therefore, it would have been obvious to bring the first and second free ends of Hunter together by guiding the first free end along a surface so that a first portion of the first layer bends and abuts a second portion of the second layer because such is known in the art, as taught by Nelson, where this allows for an automated and continuous sealing process.

As to claim 31, all the limitations were addressed with respect to claim 37 except the thermoplastic panel being corrugated and the member being a rib. Hunter teaches such (Figures 5 and 17-18)

As to claim 1, all the limitations were addressed with respect to claims 31 and 37 except the rib being interconnected with the first layer and rolling at least the first layer along a surface toward the second layer and contacting the first layer with the second layer. Hunter teaches the



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rib being interconnected with the first and second layers (column 13, lines 59-60; column 14, line 31). Hunter in view of Nelson teaches rolling at least the first layer along a surface toward the second layer and contacting the first layer with the second layer (Nelson at column 6, line 67 – column 7, line 8).

As to claims 2-12, 14, 32-36 and 38-42, Hunter and/or Hunter in view of Nelson teach such.

12. Claims 1-5, 7-9, 14, 31-34, 36-40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitajima et al. (US 3630806, of record) in view of the collective teachings of Washburn (US 3579396, of record), Jessee (US 3616077, of record) and Bousquet (US 3031356, of record) and further in view of Glans et al. (US 4606784, of record).

Kitajima teaches a packaging/container material comprising a ribbed/corrugated thermoplastic panel having a first layer 101 with a first end and a second layer 103 with a second end, with the first layer being spaced apart from the second layer by a thermoplastic member/rib 100' interconnected therewith (Figure 2; column 5, lines 14-75). The first and second ends define an open end of the packaging/container material, with the first and second layers being heat weldable or fusible (both first and second layers are thermoplastic; column 1, lines 5-31; column 2, lines 41-42; column 4, lines 42-47 and 60-62; column 5, lines 15-18).

It is unclear as to whether the reference teaches closing the open end of the packaging/container material. Therefore, it is unclear as to whether the reference teaches rolling/guiding at least the first layer along a surface toward the second layer and contacting the first layer with the second layer and heat fusing/sealing the first and second layers to form a

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closed end extending proximate an edge of the ribbed/corrugated thermoplastic panel and to define a space between the rib/member and the closed end.

It is known in the packaging/container art to bond facing sheets to both sides of a ribbed/corrugated panel where at least one of the facing sheets is rolled/guided along a surface toward the other facing sheet to contact the other facing sheet and then the facing sheets are bonded to each other to close the open ends of the panel so as to ***prevent contaminants from entering the open ends***, as taught by the collective teachings of Washburn (Figure 8; column 1, lines 39 – column 2, line 2), Jessee (Figure 4; column 1, lines 5-20) and Bousquet (Figures 7-8; column 1, lines 11-20).

The examiner appreciates that Washburn, Jessee and Bousquet all use adhesive to bond the facing sheets to each other; however, this is because all of them use paper/paperboard for the panel and facing sheets, unlike the thermoplastic panel and thermoplastic facing sheets used by Kitajima. Therefore, while Washburn, Jessee and Bousquet allow one having ordinary skill to appreciate the need in the packaging/container art to close open ends of a ribbed/corrugated panel having first and second facing sheets, one would clearly be motivated to look beyond these references to additional teachings where thermoplastic facing sheets are being joined to each other to close open ends of a panel.

It is known in the packaging/container art to close open ends of a panel having ***thermoplastic*** facing sheets disposed on both sides of a member by rolling/guiding at least one of the facing sheets along a surface toward the other facing sheet to contact the facing sheets and then bonding the facing sheets to each other by ***heat sealing/fusing*** them to form a closed end, as

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taught by Glans (abstract; column 1, lines 8-26; column 6, lines 34-61; column 8, lines 28-29 and 41-57 and 62-63).

Therefore, it would have been obvious to roll/guide at least the first layer of Kitajima along a surface toward the second layer to contact the first layer and second layers and heat seal/fuse the first and second layers to form a closed end extending proximate an edge of the ribbed/corrugated thermoplastic panel and to define a space between the rib/member and the closed end because ribbed/corrugated panels having closed ends that extend proximate an edge of the panel and define a space between the rib/member and the closed end is known in the art for preventing contaminants from entering the open ends of the panel, as taught by the collective teachings of Washburn, Jessee and Bousquet. Furthermore, it would have been obvious to one having ordinary skill in the art to close the open ends of the thermoplastic ribbed/corrugated panel of Kitajima, as modified, by heat sealing/fusing the free ends of the thermoplastic layers because such a bonding technique is known in the packaging/container art for closing open ends of a panel having first and second thermoplastic layers, as taught by Glans, where such a technique eliminates the need for a separate bonding material.

Regarding claims 36 and 42, selection of a particular heat sealing/fusing means would have been within purview of one having ordinary skill in the art.

Regarding all other dependent claims, Applicant is directed to the previous action.

13. Claims 6, 10-11, 35 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitajima in view of the collective teachings of Washburn, Jessee and Bousquet and further in view of Glans as applied to claim 1 above, and further in view of the Wagers et al. (US 3785908, of record) and Hall et al. (US 5545279, of record).

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Regarding these dependent claims, Applicant is directed to the previous action.

14. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitajima in view of the collective teachings of Washburn, Jessee and Bousquet and further in view of Glans as applied to claim 1 above, and further in view of Rias (US 5246516, of record).

Regarding claim 12, Applicant is directed to the previous action.

***Response to Arguments***

15. Applicant's arguments filed 11/22/06 have been fully considered but they are not persuasive.

16. On p. 7-8 of the remarks, Applicant argues that the nature of the problem to be solved in the present application is a need for an economical solution for producing an esthetically pleasing end in a ribbed thermoplastic panel. Such a challenge is not informed by end closure in paper/paperboard constructions and therefore one would not look to Washburn, Jessee and Bousquet to find suggestions or motivation for a method of closing an open end of a thermoplastic panel.

The Examiner appreciates that the material of the corrugated panel of Kitajima (thermoplastic) differs from that of the corrugated panels of Washburn, Jessee and Bousquet (paper/paperboard). However, the structure of the corrugated panels is the same (corrugated core sandwiched between first and second layers) and this is why the examiner only used the secondary references to show it being known in the corrugated panel art to close open ends of the panel to prevent contaminants from entering the interior of the panel – clearly a problem one would be concerned with regardless of whether the panel is thermoplastic or paper/paperboard. The Examiner then relied on the teaching of Glans to show it being known in the

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packaging/container art to close open ends of a panel having a member sandwiched between first and second thermoplastic layers by abutting the free ends of the first and second layers and heat sealing/fusing them together because this eliminates the need for an adhesive.

While the Examiner appreciates that the motivation for closing the open ends of the corrugated panel of Kitajima based on the teachings of Washburn, Jessee and Bousquet (prevent contaminants from entering the interior of the panel) differs from that of the present invention (esthetically pleasing end), the Examiner reminds Applicant that the motivation in an obviousness rejection need not mimic that of the present invention. Therefore, Applicant's argument is irrelevant.


#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica L. Ward whose telephone number is 571-272-1223. The examiner can normally be reached on Mon-Fri between 9AM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard D. Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Jessica L. Ward  
Primary Examiner  
Art Unit 1733